TEN00178-02

Operation & Maintenance Manual

MOTOR GRADER **GD555-3C**

SERIAL NUMBERS 51001 and up

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

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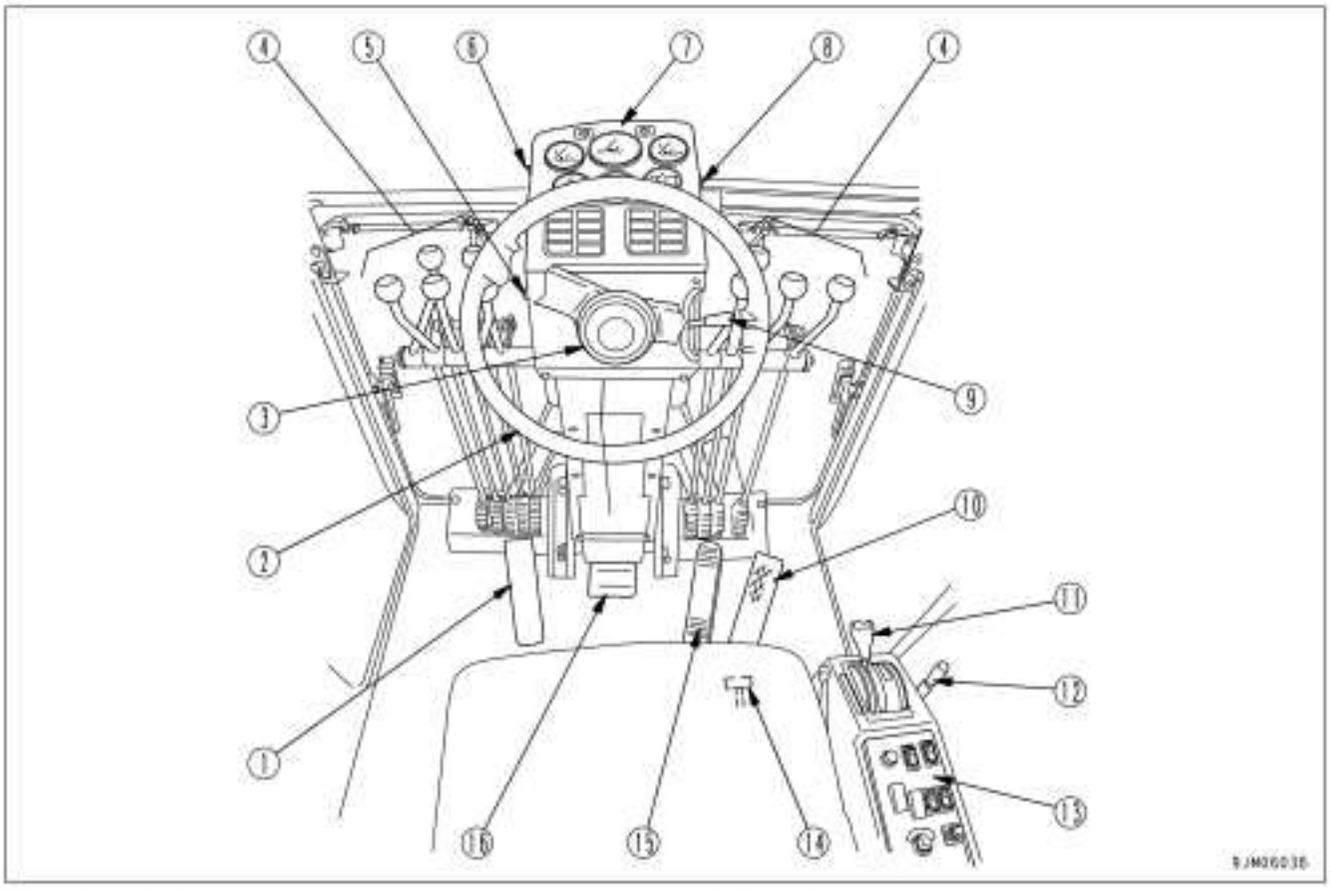
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GENERAL VIEW OF CONTROLS AND GAUGES



(1) Inching pedal
(2) Steering wheel
(3) Horn button
(4) Work equipment control lever
(5) Starting aid switch
(6) Dimmer switch
(7) Machine monitor
(8) Differential lock switch (if equipped)
(9) Turn signal lever
(10) Accelerator pedal
(11) Gearshift lever
(12) Fuel control lever
(13) Right side panel
(14) Decelerator pedal
(15) Brake pedal
(16) Steering console tilt pedal

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BATTERY

WARNING

- **The battery generates flammable gas. Do not bring fire or sparks near the battery.**
- **Battery electrolyte is dangerous. If it gets in your eyes or on your skin, wash it off with a large amount of water and consult a doctor.**
- **Battery electrolyte dissolves paint. If it gets on the bodywork, wash it off immediately with water.**
- **If the battery electrolyte is frozen, do not charge the battery or start the engine with a different power source. There is danger that the battery may explode.**
- **Battery electrolyte is toxic. Do not let it flow into drainage ditches or spray it on to the ground surface.**

When the ambient temperature drops, the capacity of the battery will also drop. If the battery charge ratio is low, the battery electrolyte may freeze. Maintain the battery charge as close as possible to 100%. Insulate it against cold temperature to ensure the machine can be started easily the next morning.
Measure the specific gravity and calculate the rate of charge from the following conversion table.

Charging Rate (%) \ Electrolyte Temperature	20°C (68°F)	0°C (32°F)	-10°C (14°F)	-20°C (-4°F)
100	1.28	1.29	1.30	1.31
90	1.26	1.27	1.28	1.29
80	1.24	1.25	1.26	1.27
75	1.23	1.24	1.25	1.26

When adding distilled water in cold weather, add it before starting operations in the morning to prevent the electrolyte from freezing.

CAUTIONS AFTER COMPLETION OF WORK

To prevent mud, water, or the undercarriage from freezing and making it impossible for the machine to move on the following morning, observe the following precautions.

- Remove all the mud and water from the machine.
  Be particularly careful to remove mud and drops of water from the surface of the hydraulic cylinder rod. This will prevent the mud from getting inside the seal and causing damage to the seal.
- Park the machine on hard, dry ground.
  If this is impossible, park the machine on wooden boards.
  The boards help protect the tracks from being frozen in soil and the machine can start next morning.
- Open the drain valve and drain any water collected in the fuel system to prevent it from freezing.
- As the battery capacity drastically drops in low temperatures, cover or remove the battery from the machine, store the battery in a warm place, and install it the next morning.

AFTER COLD WEATHER

When the season changes and the weather becomes warmer, do as follows.

- Replace the fuel and oil for all parts with oil of the viscosity specified.
  For details, see "USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE (PAGE 4-9)".
- If for any reason permanent antifreeze cannot be used, and an ethylene glycol base antifreeze (winter, one season type) is used instead, or if no antifreeze is used, drain the cooling system completely. Thoroughly flush out the cooling system and fill it with fresh coolant.

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EVERY 500 HOURS SERVICE

Maintenance for every 50 and 250 hours service should be carried out at the same time.

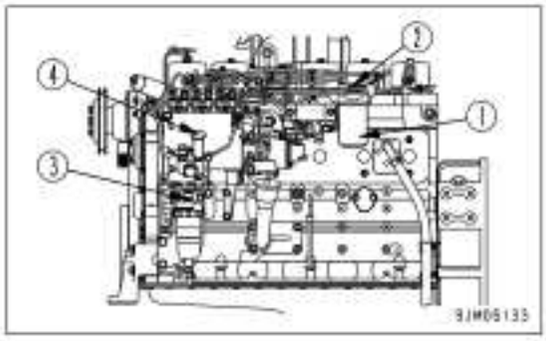
REPLACE FUEL FILTER CARTRIDGE

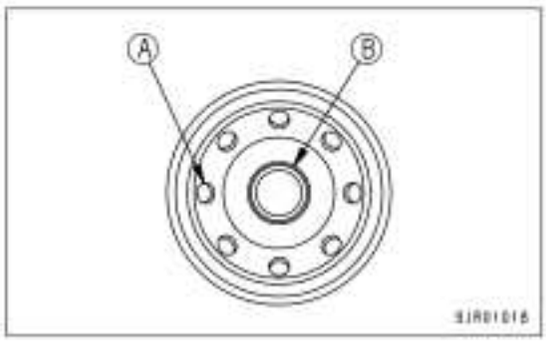
⚠ WARNING

- **After the engine is stopped, all parts are at high temperature, so do not replace the filter immediately. Wait for the parts to cool down before carrying out the replacement.**
- **The engine fuel piping line is under high pressure when the engine is running. When replacing the filter, wait for at least 30 seconds after stopping the engine to let the internal pressure go down before replacing the filter.**
- **Never bring any flame close.**
- **Be sure to use genuine Komatsu fuel filter cartridge. There is the danger that a trouble occurs in the fuel injection system, if a non-genuine product is used. Use of non-genuine parts must be definitely avoided.**
- **Be careful when unscrewing the air bleeding plug on the fuel filter head. Oil may spurt out due to the residual pressure inside the tank.**

- Prepare a filter wrench

1. Set the container under the filter cartridge to catch the drained oil.
2. Using a filter wrench, turn filter cartridge (1) counterclockwise to remove it.
3. Clean the filter head, fill the new filter cartridge with clean fuel, coat the packing surface thinly with oil, and install it to the filter holder.
   Always use clean fuel when filling with fuel, and be careful not to let any dirt or dust get in.
   Add fuel from small hole (A) (dirty side) at eight places. Do not add fuel from hole (B) (clean side) at the center.
4. When installing the seal, tighten it so its surface comes into contact with the filter holder, then tighten another 3/4 turn.
   If the filter cartridge is tightened too far, the packing will be damaged and this will lead to leakage of fuel. If the filter cartridge is too loose, fuel will also leak from the packing, so always tighten to the correct amount.





5. After replacing filter cartridges (1), loosen air bleed plugs (2), (3).

Filter cartridge (2) and plug (5) are installed only on the optional low-quality fuel specification machine.

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